



March 25, 2005

Mr. Robert A Stone  
Hazardous Materials Specialist  
Local Oversight Program  
Humboldt County Department of Health and Human Services  
Division of Environmental Health  
11 H Street Suite 100  
Eureka, CA 95501

Re: **Response to Letter dated March 1, 2005**  
Seymour Residence  
1111 Riverside Drive, Rio Dell, CA  
Clearwater Project No. AE001C

Dear Mr. Stone,

Clearwater Group (Clearwater) is pleased to submit this letter in response to the March 1, 2005 letter sent by Humboldt County Division of Environmental Health.

The correlation between the high groundwater elevation and low contaminant concentrations mentioned in the March 1, 2005 letter is not always true. For example in March 2002 and March 2003 the hydrocarbon concentrations were higher than the levels in the January 2005 sampling event and the water elevation was as high or higher than the elevation monitored in January 2005. The lowest water elevation recorded to date was in October 2004. The concentrations reported from this sampling event were at least six times lower than the maximum concentrations reported in September 2003 when the groundwater elevation was two feet higher.

Several soil and groundwater investigations have been conducted on the site since February 1998. In these investigations the only borings that showed elevated hydrocarbon contamination were next to the former underground storage tank (UST). In December 2000, boring B-5 was

drilled at a down gradient location from the former UST and was found to have non-detectable contamination in both the soil and groundwater. This indicated that the contamination had not migrated and was contained within the former UST pit area. This minimal migration is expected due to the clayey soils underlying the site.

In January 2005, groundwater was calculated to be flowing in a northwest direction with a gradient of 0.019 ft/ft. Your letter indicated the need to monitor the groundwater down gradient from MW-1. When looking at the site plan MW-3 and MW-4 deviate only twenty to thirty feet from the northwest axis. These wells have never shown any level of contamination since monitoring began in March 2002. If there were a migrating plume of hydrocarbons it would most likely be detected in these wells.

For the past six months Clearwater has been operating an in-situ oxygen curtain (iSOC) unit in MW-1 to enhance the local bioactivity. In order to assess the effectiveness of the iSOC, Clearwater plans to conduct a bi-annual monitored natural attenuation (MNA) sampling event within the next 2 weeks. Therefore, before conducting any further soil and groundwater investigations, Clearwater would suggest that the results of the MNA study be assessed along with the results of the second quarter and third quarter sampling events. These sampling events will be conducted in the summer months of 2005 when the water elevation will be lower.

Please advise as to whether the proposed action is acceptable. If you have questions or would like to discuss the project, please contact me at 510-307-9943 ext 222.

Sincerely,

**Clearwater Group**

A handwritten signature in dark ink, appearing to read 'Matthew Ryder-Smith', is written over a horizontal line.

Matthew Ryder-Smith  
Project Manager